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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,934	01/02/2001	Julie R. Korenberg	2320-1-001PCT/US	8413
34055	7590	04/06/2004	EXAMINER	
PERKINS COIE LLP			YU, MISOOK	
POST OFFICE BOX 1208			ART UNIT	PAPER NUMBER
SEATTLE, WA 98111-1208			1642	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/720,934

Applicant(s)

KORENBERG ET AL.

Examiner

MISOOK YU, Ph.D.

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-57 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1642

The Examiner of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Examiner Misook Yu.

**DETAILED ACTION**

Upon review and reconsideration, the restriction requirement mailed on 03/27/2002 is vacated and replaced with the following restriction requirement.

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-31 in part, drawn to a nucleic acid encoding the 1<sup>st</sup> splicing variant of SH3D1A i.e. SEQ ID NO:1, and fragments thereof, an oligonucleotide, antisense, vector, host cells, method to produce the first splicing variant.

**Applicant is kindly requested to supply SEQ ID NO that belongs to the nucleic acid groups 2-5. The specification at page 56 line 25 to page 57 line 2 teaches that SEQ ID NO:1, Figures 8, 10, 12, or 14 encodes a different splicing variant. For the restriction purpose, SEQ ID NO:1 encodes the 1<sup>st</sup> splicing variant; Figure 8 encodes 2<sup>nd</sup> splicing variant; Figure 10 encodes 3<sup>rd</sup> splicing variant; Figure 12 encodes 4<sup>th</sup> splicing variant; or Figure 14 encodes 5<sup>th</sup> splicing variant.**

Group 2, claim(s) 1-31 in part, drawn to a nucleic acid encoding the 2<sup>nd</sup> splicing variant of SH3D1A i.e. nucleic acid of Figure 8, antisense, oligonucleotide, vector, host cells, method to produce the 2<sup>nd</sup> splicing variant.

Group 3, claim(s) 1-31 in part, drawn to a nucleic acid encoding the 3<sup>rd</sup> splicing variant of SH3D1A i.e. nucleic acid of Figure 10, antisense, oligonucleotide, vector, host cells, method to produce the 3<sup>rd</sup> splicing variant.

Group 4, claim(s) 1-31 in part, drawn to a nucleic acid encoding the 4<sup>th</sup> splicing variant of SH3D1A i.e. nucleic acid of Figure 12, and fragments thereof, an oligonucleotide, antisense, vector, host cells, method to produce the 4<sup>th</sup> splicing variant.

Art Unit: 1642

Group 5, claim(s) 1-31 in part, drawn to a nucleic acid encoding the 5<sup>th</sup> splicing variant of SH3D1A i.e. nucleic acid of Figure 14, and fragments thereof, an oligonucleotide, antisense, vector, host cells, method to produce the 5<sup>th</sup> splicing variant.

Group 6, claim(s) 32 in part, 34 in part, and 33, drawn to an isolated polypeptide comprising the amino acid sequence set forth in Figure 5.

Group 7, claim(s) 32 in part, 34 in part, drawn to an isolated polypeptide comprising the 2<sup>nd</sup> splicing variant.

Group 8, claim(s) 32 in part, 34 in part, drawn to an isolated polypeptide comprising the 3<sup>rd</sup> splicing variant

Group 9, claim(s) 32 in part, 34 in part, drawn to an isolated polypeptide comprising the 4<sup>th</sup> splicing variant.

Group 10, claim(s) 32 in part, 34 in part, drawn to an isolated polypeptide comprising the 5<sup>th</sup> splicing variant.

Group 11, claim(s) 35 and 36 in part, drawn to an isolated antibody binding to the 1<sup>st</sup> splicing variant.

Group 12, claim(s) 35 and 36 in part, drawn to an isolated antibody binding to the 2<sup>nd</sup> splicing variant.

Group 13, claim(s) 35 and 36 in part, drawn to an isolated antibody binding to the 3<sup>rd</sup> splicing variant.

Group 14, claim(s) 35 and 36 in part, drawn to an isolated antibody binding to the 4<sup>th</sup> splicing variant.

Group 15, claim(s) 35 and 36 in part, drawn to an isolated antibody binding to the 5<sup>th</sup> splicing variant.

Group 16, claim(s) 37-39 in part, drawn to method of determining mutation in SH3D1A gene using the nucleic acid encoding the 1<sup>st</sup> splicing variant of SH3D1A.

Group 17, claim(s) 37-39 in part, drawn to method of determining mutation in SH3D1A gene using the nucleic acid encoding the 2<sup>nd</sup> splicing variant of SH3D1A.

Group 18, claim(s) 37-39 in part, drawn to method of determining mutation in SH3D1A gene using the nucleic acid encoding the 3<sup>rd</sup> splicing variant of SH3D1A.

Art Unit: 1642

Group 19, claim(s) 37-39 in part, drawn to method of determining mutation in SH3D1A gene using the nucleic acid encoding the 4<sup>th</sup> splicing variant of SH3D1A.

Group 20, claim(s) 37-39 in part, drawn to method of determining mutation in SH3D1A gene using the nucleic acid encoding the 5<sup>th</sup> splicing variant of SH3D1A.

Group 21, claim(s) 40, drawn to method of determining whether a subject has a predisposition for total 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the antibody capable of binding to the 1<sup>st</sup> splicing variant of SH3D1A.

Group 22, claim(s) 40, drawn to method of determining whether a subject has a predisposition for total 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the antibody capable of binding to the 2<sup>nd</sup> splicing variant of SH3D1A.

Group 23, claim(s) 40, drawn to method of determining whether a subject has a predisposition for total 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the antibody capable of binding to the 3<sup>rd</sup> splicing variant of SH3D1A.

Group 24, claim(s) 40, drawn to method of determining whether a subject has a predisposition for total 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the antibody capable of binding to the 4<sup>th</sup> splicing variant of SH3D1A.

Group 25, claim(s) 40, drawn to method of determining whether a subject has a predisposition for total 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the antibody of capable of binding to the 5<sup>th</sup> splicing variant of SH3D1A.

Group 26, claim(s) 41-44 in part, and 50 in part, drawn to method of determining whether a subject has a predisposition for total 7 different disorders (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk) using the isolated nucleic acid of the 1<sup>st</sup> splicing variant of SH3D1A.

Group 27, claim(s) 41-44 in part, and 50 in part, drawn to method of determining whether a subject has a predisposition for total 7 different disorders (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk) using the isolated nucleic acid of the 2<sup>nd</sup> splicing variant of SH3D1A.

Art Unit: 1642

Group 28, claim(s) 41-44 in part, 50 in part, drawn to method of determining whether a subject has a predisposition for total 7 different disorders (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk) using the isolated nucleic acid of the 3<sup>rd</sup> splicing variant of SH3D1A.

Group 29, claim(s) 41-44 in part, 50 in part, drawn to method of determining whether a subject has a predisposition for total 7 different disorders (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk) using the isolated nucleic acid of the 4<sup>th</sup> splicing variant of SH3D1A.

Group 30, claim(s) 41-44 in part, 50 in part, drawn to method of determining whether a subject has a predisposition for total 7 different diseases (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk) using the isolated nucleic acid of the 5<sup>th</sup> splicing variant of SH3D1A.

**Restriction of groups 31-40 and 51-60 below is due to the teachings of the specification at page 19 and claim 46 that the term "SH3D1A" means a polypeptide and a gene i.e. nucleic acid.**

Group 31, claim(s) 45 in part, drawn to method of suppressing cells using the 1<sup>st</sup> splicing variant polypeptide of SH3D1A.

Group 32, claim(s) 45 in part, drawn to method of suppressing cells using the 2<sup>nd</sup> splicing variant polypeptide of SH3D1A.

Group 33, claim(s) 45 in part, drawn to method of suppressing cells using the 3<sup>rd</sup> splicing variant polypeptide of SH3D1A.

Group 34, claim(s) 45 in part, drawn to method of suppressing cells using the 4<sup>th</sup> splicing variant polypeptide of SH3D1A.

Group 35, claim(s) 45 in part, drawn to method of suppressing cells using the 5<sup>th</sup> splicing variant of SH3D1A of SH3D1A.

Group 36, claim(s) 45 in part, drawn to method of suppressing cells using the isolated nucleic acid of the 1<sup>st</sup> splicing variant of SH3D1A.

Group 37, claim(s) 45 in part, drawn to method of suppressing cells using the isolated nucleic acid of the 2<sup>nd</sup> splicing variant of SH3D1A.

Art Unit: 1642

Group 38, claim(s) 45 in part, drawn to method of suppressing cells using the isolated nucleic acid of the 3<sup>rd</sup> splicing variant of SH3D1A.

Group 39, claim(s) 45 in part, drawn to method of suppressing cells using the isolated nucleic acid of the 4<sup>th</sup> splicing variant of SH3D1A.

Group 40, claim(s) 45 in part, drawn to method of suppressing cells using the isolated nucleic acid of the 5<sup>th</sup> splicing variant of SH3D1A.

Group 41, claim(s) 46 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the gene using the isolated nucleic acid of the 1<sup>st</sup> splicing variant of SH3D1A.

Group 42, claim(s) 46 in part drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the gene using the isolated nucleic acid of the 2<sup>nd</sup> splicing variant of SH3D1A.

Group 43, claim(s) 46 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the gene using the isolated nucleic acid of the 3<sup>rd</sup> splicing variant of SH3D1A.

Group 44, claim(s) 46 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the gene using the isolated nucleic acid of the 4<sup>th</sup> splicing variant of SH3D1A.

Group 45, claim(s) 46 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the gene using the isolated nucleic acid of the 5<sup>th</sup> splicing variant of SH3D1A.

Group 46, claim(s) 47 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the 1<sup>st</sup> splicing variant using the antibody capable of binding said variant.

Group 47, claim(s) 47 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the 2<sup>nd</sup> splicing variant using the antibody capable of binding said variant.

Group 48, claim(s) 47 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the 3<sup>rd</sup> splicing variant using the antibody capable of binding said variant.

Group 49, claim(s) 47 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the 4<sup>th</sup> splicing variant using the antibody capable of binding said variant.

Art Unit: 1642

Group 50, claim(s) 47 in part, drawn to method of screening a tumor sample to see whether the tumor sample has a somatic mutation in SH3D1A gene by searching the 5<sup>th</sup> splicing variant using the antibody capable of binding said variant.

Group 51, claim(s) 48 in part, drawn to method of screening a compound using the 1<sup>st</sup> splicing variant.

Group 52, claim(s) 48 in part, drawn to method of screening a compound using the 2<sup>nd</sup> splicing variant.

Group 53, claim(s) 48 in part, drawn to method of screening a compound using the 3<sup>rd</sup> splicing variant.

Group 54, claim(s) 48 in part, drawn to method of screening a compound using the 4<sup>th</sup> splicing variant.

Group 55, claim(s) 48 in part, drawn to method of screening a compound using the 5<sup>th</sup> splicing variant.

Group 56, claim(s) 48 in part, drawn to method of screening a compound using the isolated nucleic acid of the 1<sup>st</sup> splicing variant.

Group 57, claim(s) 48 in part, drawn to method of screening a compound using isolated nucleic acid of the 2<sup>nd</sup> splicing variant.

Group 58, claim(s) 48 in part, drawn to method of screening a compound using isolated nucleic acid of the 3<sup>rd</sup> splicing variant.

Group 59, claim(s) 48 in part, drawn to method of screening a compound using isolated nucleic acid of the 4<sup>th</sup> splicing variant.

Group 60, claim(s) 48 in part, drawn to method of screening a compound using isolated nucleic acid of the 5<sup>th</sup> splicing variant.

Group 61, claim(s) 49 in part, drawn to a method of monitoring the progress and treatment of 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) by determining the level of the nucleic acid of the 1<sup>st</sup> splicing variant.

Group 62, claim(s) 49 in part, drawn to a method of monitoring the progress and treatment of 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) by determining the level of the nucleic acid of the 2<sup>nd</sup> splicing variant.



Art Unit: 1642

Group 63, claim(s) 49 in part, drawn to a method of monitoring the progress and treatment of 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) by determining the level of the nucleic acid of the 3<sup>rd</sup> splicing variant.

Group 64, claim(s) 49 in part, drawn to a method of monitoring the progress and treatment of 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) by determining the level of nucleic acid of the 4<sup>th</sup> splicing variant.

Group 65, claim(s) 49 in part, drawn to a method of monitoring the progress and treatment of 5 different disorders (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) by determining the level of nucleic acid of the 5<sup>th</sup> splicing variant.

Group 66, claim(s) 52 in part, 53 in part, 56 in part, drawn to gene or antisense therapy for total 5 different diseases (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the isolated nucleic acid of the 1<sup>st</sup> splicing variant.

Group 67, claim(s) 52 in part, 53 in part, 56 in part drawn to gene or antisense therapy for total 5 different diseases (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the isolated nucleic acid of the 2<sup>nd</sup> splicing variant.

Group 68, claim(s) 52 in part, 53 in part, 56 in part, drawn to gene or antisense therapy for total 5 different diseases (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the isolated nucleic acid of the 3<sup>rd</sup> splicing variant.

Group 69, claim(s) 52 in part, 53 in part, 56 in part, drawn to gene or antisense therapy for total 5 different diseases (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the isolated nucleic acid of the 4<sup>th</sup> splicing variant.

Group 70, claim(s) 52 in part, 53 in part, 56 in part, drawn to gene or antisense therapy for total 5 different diseases (i.e. megakaryocytic abnormality, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using the isolated nucleic acid of the 5<sup>th</sup> splicing variant.

Group 71, claim(s) 51 in part, 54 in part, 55 in part, drawn to pharmaceutical comprising the 1<sup>st</sup> splicing variant and method of treating total 6 different diseases (i.e.

Art Unit: 1642

megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using said pharmaceutical.

Group 72, claim(s) 51 in part, 54 in part, 55 in part, drawn to pharmaceutical comprising the 2<sup>nd</sup> splicing variant and method of treating total 6 different diseases (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using said pharmaceutical.

Group 73, claim(s) 51 in part, 54 in part, 55 in part, drawn to pharmaceutical comprising the 3<sup>rd</sup> splicing variant and method of treating total 6 different diseases (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using said pharmaceutical.

Group 74, claim(s) 51 in part, 54 in part, 55 in part, drawn to pharmaceutical comprising the 4<sup>th</sup> splicing variant and method of treating total 6 different diseases (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using pharmaceutical.

Group 75, claim(s) 51 in part, 54 in part, 55 in part, drawn to pharmaceutical comprising the 5<sup>th</sup> splicing variant and method of treating total 6 different diseases (i.e. megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, or neural disorder) using said pharmaceutical.

Group 76, claim(s) 57 in part, drawn to transgenic, nonhuman mammal comprising the isolated nucleic acid of the 1<sup>st</sup> splicing variant.

Group 77, claim(s) 57 in part, drawn to transgenic, nonhuman mammal comprising the isolated nucleic acid of the 2<sup>nd</sup> splicing variant.

Group 78, claim(s) 57 in part, drawn to transgenic, nonhuman mammal comprising the isolated nucleic acid of the 3<sup>rd</sup> splicing variant.

Group 79, claim(s) 57 in part, drawn to transgenic, nonhuman mammal comprising the isolated nucleic acid of the 4<sup>th</sup> splicing variant.

Group 80, claim(s) 57 in part, drawn to transgenic, nonhuman mammal comprising the isolated nucleic acid of the 5<sup>th</sup> splicing variant.

The inventions listed as Groups 1-80 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: First, the

International Search Report (ISR) indicated that each of the isolated nucleic acid encoding each of the five different splicing variants from SH3D1A gene is drawn to a different general inventive concept because each of the nucleic acid encoding the different splicing variant has a different chemical structure and has a different biological function. Note the ISR.

Second, a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; (2) A product and a process of use of said product; (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; (4) A process and an apparatus or means specifically designed for carrying out said process; or (5) A product, and a process specially adapted for the manufacture of said product, and an apparatus or means specifically designed for carrying out said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(b) and (d).

In the instance case, restriction among nucleic acid, protein, and the first method of making and using the said nucleic acid, is proper under the PCT rules because the first claim does not contribute over the art. CHEN H AND ANTONARAKIS S, (a copy

provided with ISR, CYTOGENET. CELL GENET., vol. 74, 1997, pages 413-215) teach the product claimed in claim 1.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows: megakaryocytic abnormality, hematopoietic disorders, myeloproliferative disorder, platelet disorder, leukemia, neural disorder, or prenatal tumor risk.

Groups 21-30, and 61-75 contain claims generic to a plurality of disclosed patentably distinct species.

If any of groups 21-30, and 71-80 is elected, applicant is required under 35 U.S.C. 121 to elect each of a single disclosed species, even though this requirement is traversed.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the first claim does not contribute over the art since the product of the first claim is anticipated by CHEN H AND ANTONARAKIS S, (a copy provided with ISR, CYTOGENET. CELL GENET., vol. 74, 1997, pages 413-215), and the different disorders have different etiologies.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MISOOK YU, Ph.D. whose telephone number is 571-272-0839. The examiner can normally be reached on 8 A.M. to 5:30 P.M., every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne C Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MISOOK YU, Ph.D.  
Examiner  
Art Unit 1642

A handwritten signature in cursive script, appearing to read "misook yu", followed by a stylized flourish.